

Abstract

A method and apparatus is provided for determining an effective thermal mass of a patient. The effective thermal mass is employed to determine a gain factor used in a feedback control system controlling patient temperature. The method begins by inducing hypothermia or hyperthermia in at least a selected portion of the patient with a device having a heat transfer surface. Next, power is transferred between the device and the patient. A change in temperature over time, which arises in the selected portion of the patient, is measured while performing the step of inducing hypothermia or hyperthermia. Finally, an effective thermal mass is calculated based on the measured power and the measured temperature change over time.